

AMENDMENTS TO THE CLAIMS

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims

1.-44. (Canceled)

45. (Currently Amended) An information rate control processor for controlling a communication rate for transmission of information in a wireless telecommunication system having a core network and a plurality of access nodes in communication with the core network, the information rate control processor comprising:

a first sub-processor adapted to determine a plurality of maximum information transmission rates along a path of communication established between the core network and a plurality of access nodes, wherein the plurality of access nodes are adapted to control air interface resources and monitor the availability of the resources in at least two air interfaces;

a second sub-processor adapted to select a lowest one of the plurality of maximum information transmission rates, the lowest one of the plurality of maximum information transmission rates being determined by whichever of the at least two air interfaces is the most congested; and

a third sub-processor adapted to authorize or establish a communication rate no greater than the selected lowest rate.

46. (Previously Presented) The information rate control processor of claim 45, adapted to dynamically authorize or establish the communication rate during a communication session based on the type of information being communicated by a wireless mobile terminal to the access node.

47. (Previously Presented) The information rate control processor of claim 45, adapted to authorize or establish the communication rate at the set up of a

communication session between a wireless mobile terminal and the wireless telecommunication network.

48. (Previously Presented) The information rate control processor of claim 45, adapted to authorize or establish the communication rate prior to the set up of a communication session between a wireless mobile terminal and the wireless telecommunication network.

49. (Previously Presented) The information rate control processor of claim 45, adapted to be located at an access node of a wireless telecommunication system.

50. (Previously Presented) The information rate control processor of claim 45, adapted to be located at a core network.

51. (Previously Presented) The information rate control processor of claim 50, wherein the information rate control processor operates in a service specific convergence sublayer of an AAL2 adaptation layer in the core network.

52. (Previously Presented) The information rate control processor of claim 50, adapted to operate in a real time transport protocol (RTP) transport layer in the core network.

53. (Previously Presented) The information rate control processor of claim 52, adapted to operate in an RTP transport layer in an asynchronous transfer mode (ATM) network.

54. (Currently Amended) A wireless communication system, comprising:
a core network;
a plurality of access nodes each in communication with the core network wherein the plurality of access nodes are adapted to control air interface resources and monitor the availability of the resources in at least two air interfaces;

a plurality of endpoints comprising wireless mobile terminals; and
an information rate control processor adapted to control a communication rate for transmission of information in the wireless communication system among the plurality of access nodes and the endpoints.

55. (Previously Presented) The wireless communication system of claim 54, wherein the core network comprises an asynchronous transfer mode (ATM) network.

56. (Previously Presented) The wireless communication system of claim 55, wherein the ATM network includes an AAL2 adaptation layer.

57. (Previously Presented) The wireless communication system of claim 56, wherein the AAL2 adaptation layer includes a 1.366.2 Service Specific Convergence Sublayer.

58. (Previously Presented) The wireless communication system of claim 54, wherein the core network is an IP network.

59. (Previously Presented) The wireless communication system of claim 58, wherein the IP network includes a real time transport protocol (RTP) transport layer.

60. (Previously Presented) The wireless communication system of claim 54, further comprising at least two access nodes communicating between the endpoints, wherein the path of communication includes endpoint to endpoint communication.

61. (Canceled)

62. (Previously Presented) The wireless communication system of claim 60, wherein at least one interface has a variable maximum information transmission rate.

63. (Canceled)

64. (Canceled)

65. (Previously Presented) The wireless communication system of claim 54, wherein the radio access network is one selected from the group consisting of a second generation cellular access network and a third generation cellular access network.

66. (Previously Presented) The wireless communication system of claim 65, wherein at least one of the access nodes is a radio network controller in a UMTS access network

67. (Previously Presented) The wireless communication system of claim 54, wherein at least one endpoint is located in a public land mobile network (PLMN).

68. (Canceled)

69. (Previously Presented) The wireless communication system of claim 67, wherein the core network includes a universal mobile telecommunication system (UMTS) mobile switching center (UMSC) for mapping messages into an Iu framing protocol for transport in the UMTS access network.

70. (Previously Presented) The wireless communication system of claim 54, wherein at least one of the access nodes is located in a fixed access network.

71. (Previously Presented) The wireless communication system of claim 70, wherein the fixed access network is one selected from the group of a public switched telephone network (PSTN), an integrated services digital network (ISDN), and an PSTN/ISDN access network.

72. (Previously Presented) The wireless communication system of claim 71, wherein at least one of the endpoints is a fixed network terminal.

73. (Previously Presented) The wireless communication system of claim 72, wherein at least one of the access nodes is a transcoder forming part of the fixed access network.

74. (Currently Amended) An information rate control function means for controlling a communication rate for transmission of information in a wireless telecommunication system comprising:

a determining means adapted to determine a plurality of maximum information transmission rates along a path of communication established between a plurality of access nodes, wherein the plurality of access nodes are adapted to control air interface resources and monitor the availability of the resources in at least two air interfaces;

a selection means adapted to select a lowest one of the plurality of maximum information transmission rates, the lowest one of the plurality of maximum information transmission rates being determined by whichever of the at least two air interfaces is the most congested; and

an authorizing or establishment means adapted to authorize or establish a communication rate no greater than the selected lowest rate.

75. (Previously Presented) The information rate control function means of claim 74, adapted to communicate the plurality of maximum information transmission rates across a core network as messages within 1.366.2 Type 3 cells of an ATM AAL2 protocol.

76. (Previously Presented) The information rate control function means of claim 74, adapted to communicate the plurality of maximum information transmission rates across a core network as messages within RTP packets of an IP protocol.

77. (Currently Amended) A wireless telecommunications system, comprising:
at least one access network connected to a core network;

at least a first and second endpoint, comprising wireless mobile terminals, in communication with each other via the at least one access network across the core network;

at least a first and second telecommunication node adapted to set information transmission to and from the first and second endpoint; and

at least a first and second interface, wherein the first and second interfaces are adapted to control air interface resources and monitor the availability of the resources; the at least first and second endpoints communicating with the at least one access network across the first and second interfaces, at least one of the interfaces having a variable maximum information transmission ~~rate~~; rate;

wherein the first and second telecommunications nodes respectively are adapted to signal to a remote node the maximum information transmission rate supportable by the first and second interfaces, the remote node adapted to compare the maximum information transmission rates that can be supported by the first and second interfaces, and wherein the first and second telecommunications nodes respectively are adapted to set the information transmission rate to and from the first and second endpoints to not exceed that of the lower of the maximum information transmission rates.

78. (Canceled)

79. (Currently Amended) A wireless telecommunications system comprising:
a core network;

a plurality of access networks connected to the core network,

a first and second endpoint comprising wireless mobile terminals, the first and second endpoints communicating with each other via the access networks across the core network;

a first and second telecommunications node, information transmission to and from the first and second endpoints being respectively set by the first and second telecommunications nodes; and

a first and second interface, wherein the first and second interfaces are adapted to control air interface resources and monitor the availability of the resources, the first

and second endpoints communicating with one of the access networks respectively across the first and second interfaces, at least one of the interfaces having a variable maximum information transmission ~~rate- rate~~;

wherein the first telecommunications node is adapted to signal to a remote node the maximum information transmission rate supportable by the first interface, the remote node acting to compare the maximum information transmission rates that can be supported by the first and second air interfaces, and wherein the second telecommunications node is adapted to set the information transmission rate of the second endpoint to not exceed that of the lower of the maximum information transmission rates.

80. (Canceled)

81. (Previously Presented) A method for controlling a communication rate for transmission of information in a wireless telecommunication system having a core network and a plurality of access nodes in communication with the core network, comprising the steps of:

determining a plurality of maximum information transmission rates along a path of communication established between a plurality of access nodes and mobile terminals;

selecting a lowest one of the plurality of maximum information transmission rates; and

authorizing or establishing a communication rate no greater than the selected lowest rate.

82. (Previously Presented) The method of claim 81, wherein the communication rate is dynamically authorized or established during a communication session between an access node and a mobile terminal.

83. (Previously Presented) The method of claim 81, wherein the communication rate is authorized or established at the set up of the communication session.

84. (Previously Presented) The method of claim 81, wherein the communication rate is authorized or established prior to the set up of the communication session.

85. (Previously Presented) The method of claim 81, further including the step of communicating the plurality of maximum information transmission rates across the core network as messages within 1.366.2 Type 3 cells of an ATM AAL2 protocol.

86. (Previously Presented) The method of claim 81, further including the step of communicating the plurality of maximum information transmission rates across the core network as messages within RTP packets of an IP protocol.

87. (Previously Presented) A method for controlling the rate of information transmission between first and second endpoints, comprising wireless mobile terminals, which communicate with each other via access networks separated by a core network, information transmission to and from the first and second endpoints being respectively set by first and second telecommunications nodes, wherein the first and second telecommunication nodes are adapted to control air interface resources and monitor the availability of the resources, the first and second endpoints wirelessly communicating with one of the access networks respectively across first and second air interfaces, at least one of the interfaces having a variable maximum information transmission rate, the method including the steps of:

signaling by the first and second telecommunications nodes respectively to a remote node the maximum information transmission rate supportable by the first and second interfaces;

comparing the maximum information transmission rates supportable by the first and second air interfaces; and

setting the information transmission rate of each endpoint to not exceed that of the lower of the maximum information transmission rates.

88. (Previously Presented) The method of claim 87, wherein the remote node signaled by each of the first and second telecommunications nodes is the other of the first and second telecommunications nodes.

89. (Previously Presented) The method of claim 87, wherein the comparing of the maximum information transmission rates supportable by the first and second air interfaces is performed in each of the first and second telecommunications nodes.

90. (Previously Presented) The method of claim 87, wherein the setting of the information transmission rate of each endpoint to not exceed that of the lower of the maximum information transmission rates further comprises setting the rate of operation of a codec to the lower of the maximum information transmission rates.